

**REMARKS**

Claims 1-17, 30 and 31 are pending in this application. By this Amendment, claims 3-17, 30 and 31 are amended for clarity. Claims 18-29 are canceled without prejudice to, or disclaimer of, the subject matter recited in those claims. Reconsideration of the application based on the above amendments and the following remarks is respectfully requested.

The Office Action, in paragraph 3, indicates that the Information Disclosure Statement filed on March 24, 2004 has been considered. A copy of the initialed Form PTO-1449 is attached to the Office Action. Applicants respectfully request that the Examiner note that the reference indicated as reference 1 on the Form PTO-1449 identified as "Atty Docket No.: 119223 corresponds to U.S. Patent Application No. 10/807,357, the reference applied in the non-statutory obviousness-type double patenting rejection discussed below. Since this Office Action was mailed, Atty Docket No. 119223, U.S. Patent Application No. 10/807,357 issued as a patent, U.S. Patent No. 7,187,025 to Hamada et al. Applicants respectfully request that any future indication of this reference refer to the issued patent number, to include showing this patent number on the face of any patent to issue from this pending application.

The Office Action, on page 2, rejects claims 1-17, 30 and 31 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,378,382 to Nishimura et al. (hereinafter "Nishimura") in view of EP 1039525 to Nabatame et al. (hereinafter "Nabatame"). The Applicants respectfully traverse this rejection.

Claims 1-8 each recite, among other features, at least four-fold coordinated  $\text{Si}^{4+}$  or  $\text{Ge}^{4+}$  in an A site ion of  $\text{ABO}_3$  or  $(\text{Bi}_2\text{O}_2)^{2+}(\text{A}_{m-1}\text{B}_m\text{O}_{3m+1})^{2-}$ . Claims 11-14 each recite, among other features, at least four-fold coordinated  $\text{Si}^{4+}$  or  $\text{Ge}^{4+}$  in a Pb site ion of  $\text{Pb}(\text{Zr}, \text{Ti})\text{O}_3$ . At least these features cannot reasonably be considered have been suggested by Nishimura or Nabatame.

The Office Action concedes that Nishimura fails to teach Si or Ge included in the A site ion. However, the Office Action relies on Nabatame to overcome the deficiencies of Nishimura. Specifically, the Office Action cites col. 8, line 57 - col. 9, line 16 of Nabatame as teaching an inclusion of Si into a ferroelectric compound. However, Nabatame, in col. 9, line 51 to col. 10, line 2, discloses an amorphous Si compound recognized between crystals of the high dielectric material. Therefore, Nabatame, which teaches an amorphous Si compound, cannot reasonably be considered to teach a perovskite or a bismuth layer-structured ferroelectric (crystalline). Accordingly, Nabatame does not teach Si included in the A site ion (or the Pb site ion) of a ferroelectric crystal, as positively recited in claims 1-8 and 11-14.

For at least the reasons set forth above, Nishimura and Nabatame, in any permissible combination, cannot reasonably be considered to have suggested the combinations of all the features positively recited in claims 1-8 and 11-14. Further, claims 9, 10, 15, 16, 17, 30 and 31 would also not have been suggested by the applied references for at least the respective dependence of these claims on allowable independent claims, as well as for the separately patentable subject matter that each of these claims recite.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-17, 30 and 31 under 35 U.S.C. §103(a) as being unpatentable over Nishimura and Nabatame are respectfully requested.

Claims 1-17, 30 and 31 are rejected on the ground of nonstatutory obviousness-type double patenting over allowed claims 1 and 5 of co-pending application 10/807,357. The co-pending application issued as U.S. Patent No. 7,187,025 to Hamada et al. (hereinafter "Hamada") on March 6, 2007, *i.e.*, after mailing of the Office Action. Applicants understand that the provisional double-patenting rejection is converted into a double-patenting rejection.

Applicants attach a Terminal Disclaimer to obviate the rejection. Withdrawal of the double patenting rejection is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-17, 30 and 31 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Kirk D. Berkhimer  
Registration No. 59,874

JAO:KDB:GMH/eks

Attachment:  
Terminal Disclaimer

Date: April 25, 2007

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

<p><b>DEPOSIT ACCOUNT USE AUTHORIZATION</b> Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
---